

## FELLOWS-IN-TRAINING & EARLY CAREER PAGE

# The Art of Presentation

## A Valuable Skill in a Contemporary Era



Abdallah El Sabbagh, MD, Ammar M. Killu, MBBS

The expectation among fellows today is not only to be clinically competent, but also to participate in research. During their training, fellows will invariably have to give presentations within their institutions or at meetings for professional societies. Unfortunately, little time is spent teaching fellows the art of presentation—from the preparation of materials, to slide building, to public speaking.

Leonardo da Vinci stated that “simplicity is the ultimate sophistication.” Simplicity should be the core of a successful presentation. Slides with small text, elaborate font, unclear graphs, unaesthetic templates, and information overload can weaken a lecture, despite an interesting topic (1). Conversely, solid presentations with well-prepared slides have been shown to enhance not only student engagement, but also retention of information (2). Creating an outstanding presentation is not an intuitive process (3). Therefore, our goal is to outline some steps that may help fellows prepare and execute a successful presentation.

### PLANNING

The first step in any presentation is to understand your audience. This will affect your choice of content as well as the presentation format. Nancy Duarte, who has written about public speaking, suggests that asking several questions about your intended audience can help shape a presentation to meet their needs (4):

1. *Who is your audience? What is their background?*  
The aim of a presentation given to subspecialists is different than one directed at allied health staff. Your audience will determine what information

you emphasize and the depth with which you cover it. It is also important to know the audience when it comes to the use of humor. Politics, ethnic background, and sex should be considered to assess whether certain humor is appropriate.

2. *Why did the audience come to hear the presentation?* Is it voluntary attendance, or is it mandatory with specific educational objectives that are required to be covered?
3. *What do people want to get from your talk?* Are there specific fears that your audience may have about this topic that you can address? An audience of fellows may have very different concerns than an audience of medical students or attending staff.
4. *How can the presenter simplify the message?* A framework often employed is to crystallize the main message as “take-home points” or to develop streamlined algorithms to complex management decisions.
5. *What does the presenter want from the audience?* For example, the aim might be to have the audience go through a checklist with all post-operative patients who have undergone transcatheter aortic valve replacement to screen for all possible complications.

Once you have established who the audience is and what your goals are, it is then crucial to plan the content of the presentation on paper before rushing to slide building. The time estimate for researching references and planning an outline for a 1-h presentation is typically 6 to 20 h. This is followed by 20 to 60 h for building the slides, typically using a software application such as PowerPoint (Microsoft, Redmond, Washington). After all of the materials are assembled, practicing the oral presentation is critical and may require  $\geq 3$  h (4).

The next step in planning is creating an outline that structures the flow of information, graphs, images, and emotions, thus weaving a unifying message

that the audience can retain. Maya Angelou said, “People will forget what you said, people will forget what you did, but people will never forget how you made them feel” (5). Emotion is a strong memory stimulus, and triggering audience emotions can be more effective than presenting pure data (6).

By structuring the presentation with an intriguing beginning, captivating middle, and unifying ending, the audience will stay interested and retain the message.

## SLIDE BUILDING

It might be overwhelming for the audience to listen to a presenter and process what is written on the slides. The slides to a presenter are like an instrument to an orchestra. One has to complement the other. It is important to keep in mind that nothing should be on the slide that the presenter will not discuss.

**TEXT.** The fewer the words, the greater the effect. It is prudent to use <4 lines/slide, and <7 words/line. Font selection should be simple and readable, such as Calibri and Arial. Times New Roman and cursive scripts should be avoided. Font size should be large enough that they can be seen by the person sitting in the back, typically size 36 or larger (7). Each slide should look like a headline, and details should be elaborated through speech. Bullet points can be avoided, because they have been shown to be an ineffective way of delivering information (1). Bold text is optional, although the resolution of contemporary presentation applications makes this unnecessary.

**TEMPLATE/COLOR.** Choose a simple template that clearly delineates and contrasts the text, such as black on white or vice versa. The background should not compete with the content (4). White or black backgrounds have the best contrast (4). Sophisticated templates are not aesthetically pleasing and can be distracting. Color blindness is prevalent and is found in >5% of non-Hispanic white males (8); therefore, avoid slides with red on green or blue on yellow scales (9).

**ANIMATIONS.** Excessive use of animations can be very distracting (9); however, it can help to highlight key points when used appropriately. If a presentation includes a busy table or a complicated guideline algorithm, which is difficult for the audience to read, a pop-out box can be helpful in highlighting key points. Another helpful animation is layering, which can be used to separate points so that they appear on the screen at different times (10).

**IMAGES.** Images get the point across better than text, because of the “picture superiority effect,” in which humans retain more information when a picture is presented as compared with text (11). High-resolution pictures are preferred over images or clipart. Tables, figures, or flowcharts should be clear. If needed, divide the image into different slides so as not to compromise the clarity, or use an animated pop-out box.

## DELIVERY

A good speaker spends as much time rehearsing the presentation as he or she does preparing it. Although this includes the oral presentation, you should thoroughly understand the background information and data that you are presenting, in case questions arise. This also will diminish anxiety and facilitate the interaction with the audience in a relaxed, professional, and confident manner. The presenter should arrive early to the room to test the equipment (ensuring compatibility) and to identify with the setting (4).

There are 3 main skills that are needed:

1. *Vocal pedagogy.* Varying the pace, tone, and pitch is more engaging than monotonous speech. The presenter should practice strategic pausing instead of mumbling words or apologizing to collect one’s thoughts. Limit the use of filler words like “ah” or “um” (12).
2. *Gestures and body language.* Eye contact helps to engross the audience. Facial expressions and hand gestures can generate notice. Avoid counting on fingers or putting your hands in your pockets while standing. Although moving around can be helpful, in excess it can be distracting. Be careful not to block the screen (12). If the speaker looks bored, then the audience will stop paying attention.
3. *Audiovisual coordination.* Although the slides should coincide with what you are saying, avoid reading off the slides or standing in front of them. The laser pointer or the mouse arrow needs to move deliberately to highlight important points. Again, excessive use can be distracting.

When speaking in public, you are representing not only yourself, but also your colleagues and institution. People will remember bad presentations as well as the good.

In summary, we have sought to highlight common mistakes made during public presentations. We believe presentation skills should be taught as part of the fellowship curricula. This can be incorporated through workshops or by inviting public speaking

experts to give talks. In the meantime, fellows should watch videos of world-class public speakers, such as former U.S. President Bill Clinton or former Apple Chief Executive Officer Steve Jobs, paying particular attention to their styles.

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**REPRINT REQUESTS AND CORRESPONDENCE:** Dr. Abdallah El Sabbagh, Mayo Clinic, 200 First Street Southwest, Rochester, Minnesota 55905. E-mail: [ElSabbagh.Abdallah@mayo.edu](mailto:ElSabbagh.Abdallah@mayo.edu).

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# **RESPONSE:** Communication in Education

## A Core Competency for the Cardiologist

Rick A. Nishimura, MD, Carole A. Warnes, MD  
Division of Cardiovascular Diseases, Mayo Clinic, Rochester, Minnesota  
E-mail: [rnishimura@mayo.edu](mailto:rnishimura@mayo.edu)

The art of presentation is an essential skill of a competent cardiologist. Just as in other areas of cardiovascular medicine (performance of the physical examination, clinical decision-making, cardiac imaging, and invasive interventions), this skill must be learned during training and practiced throughout one's career. The application of these skills extends far beyond the required presentations during fellowship. The ability to clearly communicate and educate is a necessity for the future of all cardiologists, be it in an academic center where one has the responsibility to teach and educate younger physicians, or in a clinical practice, where one is expected to direct and lead the cardiovascular team. We would agree with the recommendations for creating better presentations as outlined by El Sabbagh and Killu, which include knowing the audience, delineating the learning objectives, creating appropriate PowerPoint slides, as well as the nuances of public speaking to keep the audience interested and engaged. A simple mantra to help in the organization of a talk that is espoused by key educators at the American College of Cardiology (ACC) is: "First tell them what you are going to tell them, then tell them, and finally, tell them what you told them."

Although presentation skills may not be emphasized as part of a formal cardiology curriculum, there is a wealth of opportunity in any academic training program for fellows to develop their skills. Direct observation of experts, such as in the cardiac catheterization or echocardiography laboratory, facilitates the learning of complex techniques, which are further enhanced by having faculty observe and critique the technique of the fellow. A similar approach should be taken for developing presentation skills. At all academic centers, there are always key faculty recognized as superb educators. Fellows and early career staff should take the opportunity to carefully observe these highly regarded educators, not only for the message they convey, but also for the manner in which they present them. Much can be learned from observing the different styles of master educators and the effect that they have on the learners. In addition, fellows should seek out these master educators to personally critique their own presentation. All highly regarded educators are able to refer back to the experiences when their own mentor would critically evaluate their presentations and slides, resulting in a better presentation.

The ACC recognizes the value of the art of presentation. There is now a library of educational sessions covering various aspects of an ideal presentation on [ACC.org](http://ACC.org), available to all presenters at College programs. The Emerging Faculty Program brings together top young educators to refine their presentation skills as well as to learn educational theory and application. The training of these

early career stars will then be the model by which many more can be trained at their home institutions.

The next time you are asked to give a presentation, follow the guidelines outlined by El Sabbagh and Killu. Take the time and effort to study the master educators in your own institution, and ask one of them to fully critique your presentation; the lessons from this will last forever.